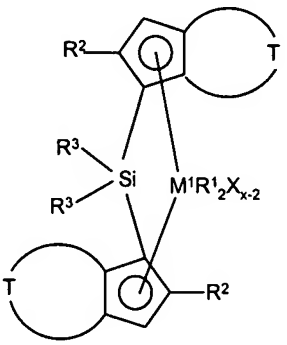
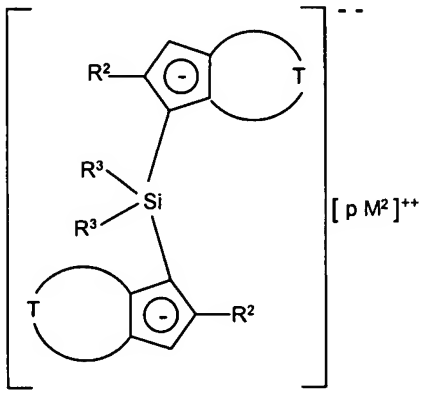
AMENDMENTS TO THE CLAIMS

1. (currently amended) A process for the racemoselective preparation of silicon-bridged dialkyl-ansa-metallocenes of the formula (I):



(I)

which comprises reacting a ligand starting compound of the formula (II):



(II)

with a transition metal dialkyl compound of the formula (III):

$$M^1X_xR^1_2{*}D_y \quad \text{(III)},$$

where

M^1 is an element of group 4, 5 or 6 of the Periodic Table of the Elements;

R^1 are identical C_1-C_{20}-alkyl or C_7-C_{40}-arylalkyl radicals;

X are identical or different halogens;

R^2 are identical or different C_1-C_{40} radicals;

R^3 are identical or different C_1-C_{40} radicals;

T is a divalent C_1-C_{40} group which together with the cyclopentadienyl ring forms a further saturated or unsaturated ring system which has a ring size of from 5 to 12 atoms, where T may contain the heteroatoms Si, Ge, N, P, O or S in the ring system fused onto the cyclopentadienyl ring;

M^2 is Li, Na, K, MgCl, MgBr, MgI, Mg or Ca;

D is an uncharged Lewis base ligand;

x is equal to the oxidation number of M^1 minus 2;

y is from 0 to 2;

and

p is 1 in the case of doubly positively charged metal ions or 2 in the case of singly positively charged metal ions or metal ion fragments,

wherein a racemoselectivity = (proportion of rac – proportion of meso)/(proportion of rac + proportion of meso) is greater than zero.

2. (previously presented) The process as claimed in claim 1, wherein

T is a 1,3-butadiene-1,4-diyl group which may be unsubstituted or be substituted by from 1 to 4 radicals R^4, where the two 1,3-butadiene-1,4-diyl groups may be different;

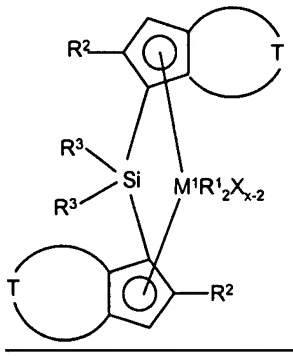
R^4 are identical or different C_1-C_{20} radicals;

M^1 is titanium, zirconium or hafnium;

R^1 are identical C_1-C_5-alkyl or C_7-C_{20}-arylalkyl radicals; and

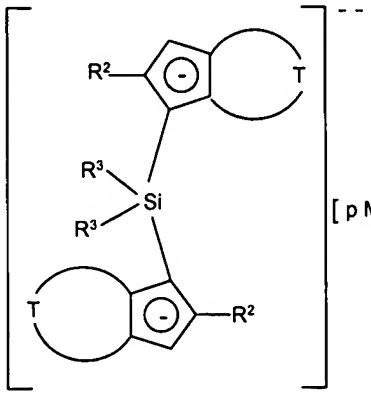
X is halogen.

3. (currently amended) ~~The process as claimed in claim 1,~~A process for the racemoselective preparation of silicon-bridged dialkyl-ansa-metallocenes of the formula (I):



(I)

which comprises reacting a ligand starting compound of the formula (II):



(II)

with a transition metal dialkyl compound of the formula (III):

$$M^1X_xR^1_2*D_y \quad (III),$$

where

M^1 is an element of group 4, 5 or 6 of the Periodic Table of the Elements;

R^1 are identical C_1-C_{20}-alkyl or C_7-C_{40}-arylalkyl radicals;

X are identical or different halogens;

R^2 are identical or different C_1-C_{40} radicals;

R^3 are identical or different C_1-C_{40} radicals;

T is a divalent C_1-C_{40} group which together with the cyclopentadienyl ring forms a further saturated or unsaturated ring system which has a ring size of from 5 to 12 atoms, where T may contain the heteroatoms Si, Ge, N, P, O or S in the ring system fused onto the cyclopentadienyl ring;

M^2 is Li, Na, K, MgCl, MgBr, MgI, Mg or Ca;

D is an uncharged Lewis base ligand;

x is equal to the oxidation number of M^1 minus 2;

y is from 0 to 2;

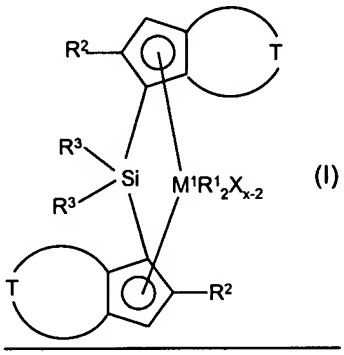
and

p is 1 in the case of doubly positively charged metal ions or 2 in the case of singly positively charged metal ions or metal ion fragments,

wherein the transition metal dialkyl compound of the formula (III) is produced at above –30°C by combining a compound M^1X_{x+2} with from 2 to 2.5 equivalents of a compound R^1M^3 in the presence of a ligand compound D, where

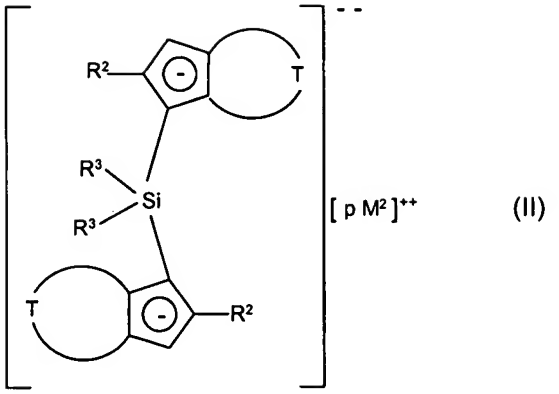
M^3 is Li^+, Na^+, K^+, $MgCl^+$, $MgBr^+$, MgI^+, ½ [Mg^{++}] or ½ [Zn^{++}].

4. (currently amended) ~~The process as claimed in claim 1,~~A process for the racemoselective preparation of silicon-bridged dialkyl-ansa-metallocenes of the formula (I)



(I)

which comprises reacting a ligand starting compound of the formula (II):



(II)

with a transition metal dialkyl compound of the formula (III):

$$M^1X_xR^1_2*D_y \quad (III),$$

where

M^1 is an element of group 4, 5 or 6 of the Periodic Table of the Elements;

R^1 are identical C_1-C_{20}-alkyl or C_7-C_{40}-arylalkyl radicals;

X are identical or different halogens;

R^2 are identical or different C_1-C_{40} radicals;

R^3 are identical or different C_1-C_{40} radicals;

T is a divalent C_1-C_{40} group which together with the cyclopentadienyl ring forms a further saturated or unsaturated ring system which has a ring size of from 5 to 12 atoms, where T may contain the heteroatoms Si, Ge, N, P, O or S in the ring system fused onto the cyclopentadienyl ring;

M^2 is Li, Na, K, MgCl, MgBr, MgI, Mg or Ca;

D is an uncharged Lewis base ligand;

x is equal to the oxidation number of M^1 minus 2;

y is from 0 to 2;

and

p is 1 in the case of doubly positively charged metal ions or 2 in the case of singly positively charged metal ions or metal ion fragments,

wherein the ligand starting compound of the formula (II) is combined with the transition metal dialkyl compound of the formula (III) at above –30°C.

5. (currently amended) The process as claimed in claim 4, wherein a reaction mixture is maintained at from 30°C to 150°C for a period of at least 10 minutes after the reaction components (II) and (III) have been combined.

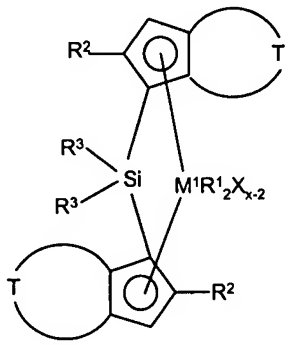
6. (previously presented) The process as claimed in claim 1, wherein the reaction is carried out in an organic solvent or solvent mixture which comprises at least 10% by volume of an ether.

7. (cancelled)

8. (currently amended) A process ~~comprising utilizing a transition metal dialkyl compound of the formula (III):~~

~~$M^1X_xR^1_2*D_y$ (III)~~

-for the racemoselective preparation of silicon-bridged dialkyl-ansa-metallocenes of the formula (I):



(I)

wherein

M^1 is an element of group 4, 5 or 6 of the Periodic Table of the Elements;

R^1 are identical C_1-C_{20}-alkyl or C_7-C_{40}-arylalkyl radicals;

X are identical or different halogens;

R^2 are identical or different C_1-C_{40} radicals;

R^3 are identical or different C_1-C_{40} radicals;

~~D is an uncharged Lewis base ligand;~~

~~y is from 0 to 2;~~

T is a divalent C_1-C_{40} group which together with the cyclopentadienyl ring forms a further saturated or unsaturated ring system which has a ring size of from 5 to 12 atoms, where T may contain the heteroatoms Si, Ge, N, P, O or S in the ring system fused onto the cyclopentadienyl ring; and

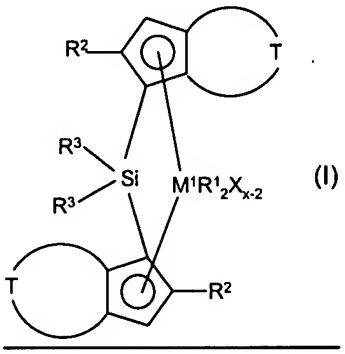
x is equal to the oxidation number of M^1 minus 2,

comprising utilizing a transition metal dialkyl compound of the formula (III):

$$M^1X_xR^1_2*D_y \quad (III)$$

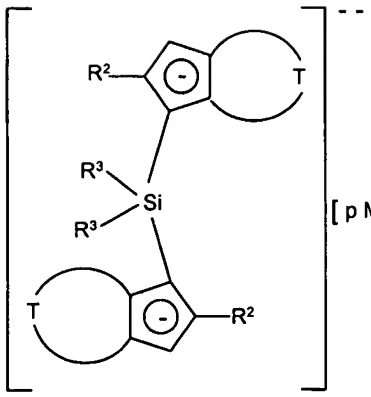
wherein D is an uncharged Lewis base ligand and y is from 0 to 2.

9. (currently amended) ~~The process as claimed in claim 2,~~A process for the racemoselective preparation of silicon-bridged dialkyl-ansa-metallocenes of the formula (I):



(I)

which comprises reacting a ligand starting compound of the formula (II):



(II)

with a transition metal dialkyl compound of the formula (III):

$$M^1X_xR^1_2{*}D_y \quad \text{(III)},$$

where

R^2 are identical or different C_1-C_{40} radicals;

R^3 are identical or different C_1-C_{40} radicals;

M^2 is Li, Na, K, MgCl, MgBr, MgI, Mg or Ca;

D is an uncharged Lewis base ligand;

x is equal to the oxidation number of M^1 minus 2;

y is from 0 to 2;

p is 1 in the case of doubly positively charged metal ions or 2 in the case of singly positively charged metal ions or metal ion fragments,

T is a 1,3-butadiene-1,4-diyl group which may be unsubstituted or be substituted by from 1 to 4 radicals R^4, where the two 1,3-butadiene-1,4-diyl groups may be different;

R^4 are identical or different C_1-C_{20} radicals;

M^1 is titanium, zirconium or hafnium;

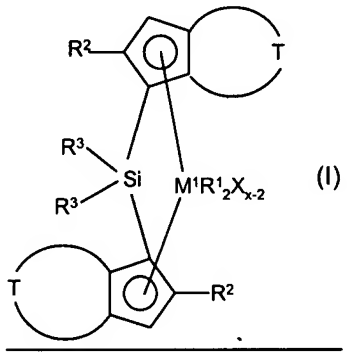
R^1 are identical C_1-C_5-alkyl or C_7-C_{20}-arylalkyl radicals; and

X is halogen,

wherein the transition metal dialkyl compound of the formula (III) is produced at above –30°C by combining a compound M^1X_{x+2} with from 2 to 2.5 equivalents of a compound R^1M^3 in the presence of a ligand compound D, where

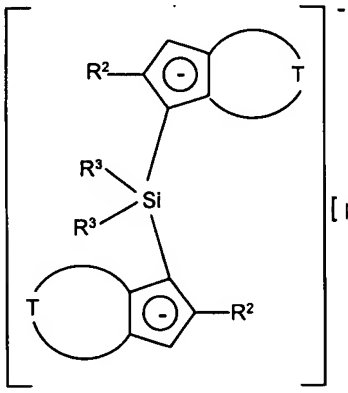
M^3 is Li^+, Na^+, K^+, $MgCl^+$, $MgBr^+$, MgI^+, ½ [Mg^{++}] or ½ [Zn^{++}].

10. (currently amended) ~~The process as claimed in claim 2,~~A process for the racemoselective preparation of silicon-bridged dialkyl-ansa-metallocenes of the formula (I):



(I)

which comprises reacting a ligand starting compound of the formula (II):



(II)

with a transition metal dialkyl compound of the formula (III):

$M^1X_xR^1_2{*}D_y$ (III),

where

R^2 are identical or different C_1-C_{40} radicals;

R^3 are identical or different C_1-C_{40} radicals;

M^2 is Li, Na, K, MgCl, MgBr, MgI, Mg or Ca;

D is an uncharged Lewis base ligand;

x is equal to the oxidation number of M^1 minus 2;

y is from 0 to 2;

p is 1 in the case of doubly positively charged metal ions or 2 in the case of singly positively charged metal ions or metal ion fragments,

T is a 1,3-butadiene-1,4-diyl group which may be unsubstituted or be substituted by from 1 to 4 radicals R^4, where the two 1,3-butadiene-1,4-diyl groups may be different;

R^4 are identical or different C_1-C_{20} radicals;

M^1 is titanium, zirconium or hafnium;

R^1 are identical C_1-C_5-alkyl or C_7-C_{20}-arylalkyl radicals; and

X is halogen,

wherein the ligand starting compound of the formula (II) is combined with the transition metal dialkyl compound of the formula (III) at above –30°C.

11. (currently amended) The process as claimed in claim 10, wherein a reaction mixture is maintained at from 30°C to 150°C for a period of at least 10 minutes after the reaction components (II) and (III) have been combined.